

Abstract

The Mars Sample Return Project

William J. O'Neil
Project Manager
Mars Sample Return Project
Jet Propulsion Laboratory
Pasadena, Ca. USA 91109

Christian Cazaux
Mars Sample Return Project Manager
Centre National D'Etudes Spatiales
Toulouse, France

The Mars Sample Return (MSR) Project is underway. A 2003 mission to be launched on a Delta III Class vehicle and a 2005 mission launched on an Ariane 5 will culminate in carefully selected Mars samples arriving on Earth in 2008. NASA is the lead agency and will provide the Mars landed elements, namely, landers, rovers, and Mars ascent vehicles (MAVs). The French Space Agency CNES is the largest international partner and will provide for the joint NASA/CNES 2005 Mission the Ariane 5 launch and the Earth Return Mars Orbiter that will capture the sample canisters from the Mars parking orbits the MAVs place them in. The sample canisters will be returned to Earth aboard the CNES Orbiter in the Earth Entry Vehicle provided by NASA. Other national space agencies are also expected to participate in substantial roles including especially Italy and Germany. This Paper will present the current status of the design of the MSR missions and flight articles.